

Article

Quantum Epiontic GOD: A 'Mystical' Metaphysics of Constrained Religious Relativism

Graham P. Smetham*

Abstract

It is quite clear that the new quantum perspective indicates that all sentient beings carry a small part of the infinite awareness-consciousness which lies within the heart of reality. This also means that, as John Wheeler in the twentieth century and Buddhist philosophers for at least the last two thousand years have suggested, sentient beings are the agents through which the epiontic ground of the process of reality creates the dualistic world of experience. Furthermore human beings, because of their greater sphere of free-will are primarily responsible for the fate and nature of the universe on all levels of manifestation. And, as Stapp, Wheeler, Zurek and others indicate, the intentions and perceptions of sentient beings have a universal impact upon the quantum ground, vanishingly tiny though it may be for any particular individual being. This impact of the intentionality and perceptual activities of sentient beings upon deep levels of the quantum Mindnature universe is such that, as Wheeler and others have clearly indicated, the actual fabric of the appearance of the material world is produced, over vast time scales, by the quantum epiontic mechanism. In fact it seems as if we live in an Epiontic Universe within which the perceptions and activities of all sentient beings determine how, within the limits of the available potentialities, the universe actually manifests. If this is true of the seemingly material realm it must also be true of the spiritual realm. This is indeed a remarkable upshot; an understanding of the epiontic quantum nature of the process of reality gives us a precise insight to the nature of the 'constrained relativism' of mystical religious 'symbolic forms.' It must be the case that the manifestation of the qualitative spiritual ground of reality will depend upon the ways in which the spiritual dimension of reality has been epiontically perceived by human beings over long time periods.

Keywords: GOD, Grand Designer, theory of everything, quantum, epiontic universe, metaphysics, relativism.

In my previous essay *The Grand Designer: Can Hawking's Godless Theory of Everything Run Without God* (Vol 1, No. 7 – 2010) I demonstrated that if one took the core proposals for the basis of the Theory of Everything contained within Hawking and Mlodinow's book *The Grand Design* seriously then the conclusions they reach, in particular the controversial conclusion that physics proves the redundancy of the notion of God, are seriously incorrect. In fact the conclusion, that a 'whole universe' can 'just appear out of nothing' and therefore 'it is not necessary to invoke God to light the blue touch paper and set the universe going'¹ is clearly at variance with the earlier assertion that at the moment of the big bang the universe 'appeared spontaneously, starting off in every possible way,' and then subsequently sentient beings somehow 'choose' or 'create' for themselves which universe they will occupy through the exercise of perceptual weeding out of possibilities.

* Correspondence: Graham Smetham, <http://www.quantumbuddhism.com> E-mail: graham@quantumbuddhsim.com

This perspective clearly requires that at the moment of 'creation' there must be a quantum field of infinite potentiality which contains its own mechanism of unfoldment; furthermore this universal field must be of the nature of consciousness-awareness. The conclusion that the ultimate nature of the universal process must be of the nature of consciousness follows exactly from Hawking and Mlodinow's adherence to Feynman's 'sum over histories' approach to quantum theory, which requires that:

The histories that contribute to the Feynman sum don't have an independent existence, but depend on what is being measured. We create history by our observations, rather than history creating us.²

In other words it is the exercise of sentient 'observation', or perception, which creates 'our history', which also means that sentient perception determines the nature of the universal process backwards in time, and also forwards in time, through the weeding out of potentialities. Thus in their chapter 'Choosing our Universe' Hawking and Mlodinow tell us that in one possible universal history the moon is made of 'Roquefort cheese' but somehow the perceptual activities of the sentient beings of the current universe has vetoed this possibility and opted for a moonrock moon; although there may be other universes which do have a Roquefort cheese moon, the sentient beings in our universe have, over vast time scales, 'chosen' moonrock.³

The conclusion to my previous essay was:

At the ground of the process of reality there might be an infinitely potent, innately intelligent awareness which explores its own potentialities through manifesting the 'little sensoriums' of all sentient beings. As quantum physicist Anton Zeilinger describes John Wheeler's quantum conclusion:

...since we are part of the universe, the universe, according to Wheeler, creates itself by observing itself through us.⁴

We are all part of the Grand Designer!

And slightly earlier in my discourse I indicated that this 'grand designer' could be considered to take the place of the concept of 'God' by quoting the highly regarded physicist Professor Henry Stapp:

This situation is concordant with the idea of a powerful God that creates the universe and its laws to get things started, but then bequeaths part of this power to beings created in his own image, at least with regard to their power to make physically efficacious decisions on the basis of reasons and evaluations.⁵

Furthermore I referred to the work of the theologian Professor Keith Ward's book *Why There Almost Certainly Is a God* in which he gives an account of his 'God hypothesis' which is concordant with Stapp's and my own perspective:

The God hypothesis proposes that there is a consciousness that does not depend upon any material brain, or any material thing at all. In this consciousness all possible worlds exist, though only as possible states that may or may not exist. The cosmic consciousness can evaluate these possible worlds in terms of their desirability – their beauty or elegance or fecundity, for example. Then, being actual, it can bring about desirable states and enjoy them.⁶

However, I was critical of Ward's view of the selection mechanism by which a privileged set of these potentialities becomes actual, I wrote that:

Ward falls back upon the traditional view of the omnipotence of God. According to Ward's proposal it is God, apparently acting as an independent agent taking the position of external cosmic observer firing quantum beams of approval into the world of potential manifestation, who 'selects' which of the possible worlds are 'desirable.'

The point that I am making here is that the notion that God could be separate and independent of the 'created', or manifested, universe is incoherent and the metaphysical model I proposed in contrast was that all sentient beings were the 'agents', or co-creators, of, or with, God.

Subsequently Richard D. Ruquist has commented on my essay (December 2010, Vo 1, Issue 8), mostly favorably but with some reservations. Some of Ruquist's remarks are pertinent to the perspective I wish to develop in this paper: the metaphysical vision of a *constrained epiontic religious relativism* with the notion of an epiontic God, a God who manifests, within metaphysical-spiritual constraints, according to the spiritual capacities and predilections of religious practitioners. I will therefore respond to Ruquist within the context of the development of this metaphysical perspective.

Ruquist writes that:

I support Graham Smetham's argument and conclusions regarding the need for consciousness to select a "privileged set of potentialities" from the "vast maze of cosmic potentiality". But from a string cosmology perspective the primary selection mechanism is closer to Ward's omnipotent God than human consciousness.

More specifically, cosmic consciousness is required to choose a single quantum superposition from all the possible states that a particle might have in order to obtain a single universe rather than the deterministic multiverse of parallel worlds that Hawking apparently believes in. I also agree that in addition human consciousness can make similar choices, but also animal consciousness and perhaps even plant and bacterial consciousness.

However, the universe came into existence before any life evolved and a cosmic consciousness was required then to avoid determinism - and I think now. It seems that the scientific aversion to considering the existence of the supernatural prevents any consideration of a cosmic consciousness even when its requirement is staring in your face.

This issue has been addressed to some extent by Professor Stapp in his paper *Quantum Collapse and the Emergence of Actuality from Potentiality*; in this paper, under a section subtitled 'How Did It All Begin?', Stapp refers to a discussion that he had with Heisenberg regarding his notion that the manner in which quantum potentialities are 'collapsed' into definite actualities depends on 'our choices of our actions' which 'are at least in part determined by *reasons*, which belong to the mental realm of idea-like qualities'.⁸ Heisenberg commented to Stapp:

There is one problem which I would like to mention, not in order to criticize the wording in your paper, but for inducing you to more investigation of this special point, which is however a very deep and old philosophical problem. When you speak

about the ideas . . . , you always speak about human ideas, and the question arises, do these ideas “exist” outside of the human mind or only in the human mind? In other words: Have these ideas existed at a time when no human mind existed in the world.⁹

The first point which needs making is that, whilst Stapp’s writings and discussions do for the most part refer to human choices and actions having quantum implications, this was not the case in my own paper where I specifically used the term ‘sentient beings’, unless the context made it more appropriate to implicate the human realm more primarily. This is in line with the sentiments of the British astrophysicist Brandon Carter, who coined the term ‘anthropic principle’ to indicate the fact that the universe was primed to produce life and consciousness; apparently he regretted the use of this term because it seemed to imply that only human consciousness was at issue whereas he had meant to indicate sentience in general. He later thought that perhaps a term such as ‘biophilic’ might have been better.¹⁰ For my own part I come from a Buddhist background within which it has always been considered that the seemingly material world was a product of the ‘karmic’ activities of all sentient beings over vast time scales:

From a Buddhist point a view, the karma of all sentient beings that inhabit the universe plays a role in shaping the formation of the universe.¹¹

This, then, would cover ‘animal consciousness and perhaps even plant and bacterial consciousness, if, that is, one considers plants and bacteria to partake of a minimal consciousness. As I adopt a Buddhist Mind-Only metaphysical approach, which may be considered a variety of panpsychism, I have no problem with this viewpoint.

In his comments regarding Heisenberg’s question Stapp refers to the anthropic principle, the issue of why are the laws of nature so finely tuned as to permit life, as being ‘one of the great conundrums of our time’.¹² He refers to the string-theory approach, which because of the huge number of possible scenarios can offer the solution that one of the scenarios within the string-theoretic multiverse must produce life and mind and also John Wheeler’s ‘self-synthesized’ universe scenario which Wheeler derived from speculations upon ‘delayed choice’ experiments, a perspective which is fundamentally isomorphic to the Hawking- Mlodinow proposal.

Stapp writes that:

It seems that both of these solutions require a pre-existing mental realm to exist, lying in wait for a suitable physical world with a brain to come into being. This is because, just as in classical physics, the physically described properties alone do not seem to demand the existence of a mental realm: the physically described part could just be grinding out “physically described potentialities” forever, with no connection to anything mental. Of course, if “potentiality” means, intrinsically, potentiality for a psychophysical event to occur, then the dualistic character, which includes mental aspects, is built in basically from the start.

And:

If one tries to understand how such a structure could be created in the first place, one seems to be pushed back to a primordial mental reality, for it is difficult to understand how a purely physical/mechanical structure could create its own laws. In the bible-based culture in which classical physics was born it was natural to assign to

a non-physical God the role of creator and law-giver for the physically described universe. But even if we discount the god's of various religions, it seems difficult to imagine how idea-like realities could emerge from a world completely devoid of any such aspects, and how physical laws could come to be fixed by a purely physical mindless universe.

Thus we see that Stapp agrees in principle with Wheeler:

Law without law. It is difficult to see what else than that can be the plan of physics. It is preposterous to think of the laws of physics as installed by Swiss watchmaker to endure from everlasting to everlasting when we know that the universe began with a big bang. The laws must have come into being. Therefore they could not have been always a hundred percent accurate. That means that they are derivative, not primary ... Events beyond law. Events so numerous and so uncoordinated that, flaunting their freedom from formula, they yet formulate firm form ... The universe is a self excited circuit. As it expands, cools and develops, it gives rise to observer-participancy. Observer-participancy in turn gives what we call tangible reality to the universe ... Of all the strange features of the universe, none are stranger than these: time is transcended, laws are mutable, and observer participancy matters.¹³

A significant observation in this quote is that the universe 'as it expands, cools and develops, it gives rise to observer-participancy. Observer-participancy in turn gives what we call tangible reality to the universe...' which indicates an interdependent evolutionary process which physicist Amit Goswami calls a 'tangled hierarchy' within which the observing aspect and the observed aspect of the evolutionary process develop inter-dependently through a sequence of increasingly 'explicate', or materialized, levels of manifestation.

Furthermore, according to Goswami the evidence of the 'delayed choice experiment', in which it can be demonstrated that the way in which consciousness determines the 'collapse of the wave function' can operate backwards in time, shows that this solidification through continuous observation can operate backwards in time:

The lesson of the delayed choice experiment is profound. It solves the measurement problem for quantum cosmology-how the universe of possibility can be actualized even though no sentient being was present to observe the big bang. The universe remains in a superposition of baby universes that evolves in possibility until, in one of the possible universes, the possibility of sentience arise. The quantum consciousness/God collapses the possibilities and the evolved first sentient being observes itself as separate from its environment, where upon simultaneously the universe manifests retroactively, going backward in time from the moment of collapse all the way to the big bang.¹⁴

So here we find that Goswami suggests that it is 'quantum consciousness/God' that is responsible for directing the course of evolution until evolved sentient beings can get on the job so to speak.

Two significant points emerge from this viewpoint. Firstly, this perspective is clearly in harmony with Ruquist's requirement that 'the universe came into existence before any life evolved and a cosmic consciousness was required then to avoid determinism' and, secondly, we see that Goswami is in accord with Ward's identification of the notion of 'God' with the

infinite creative pool of informational potentiality which we now know underlies the process of the universe.

With respect to the first point I must say that I am in full agreement with Goswami and Ruquist; the fundamental ground of reality can be characterized as a field of 'cosmic consciousness', a field which within Buddhism is called 'empty cognizance' because it is 'empty' of any particular manifestation but is the infinitely fertile potentiality for all manifestation and, furthermore, it contains the function of internal cognition which provides the 'spark' for the unfoldment of potentialities. However, at the same time as accepting the characterization of the ultimate sphere from which evolution is driven as an essentially unified cosmic consciousness, it must also be the case that the potentialities for every possible type of sentient being must be latent within this universal field of cosmic awareness.

In his excellent book *Life's Solution: Inevitable Humans in a Lonely Universe* Professor Simon Conway Morris has demonstrated the prevalence of the convergence of evolutionary 'solutions' to survival challenges across widely differing species, a phenomenon which suggests that templates for the structure of various components of plant and animal physiology, which can be viewed in the light of Rupert Sheldrake's notion of 'morphogenetic fields', are seeded into the potentialities underlying the evolutionary process:

Evolutionary convergence shows that we live in a constrained world, where all may not be possible. ... It shows ... that at many levels evolution is seeded with probabilities, if not inevitabilities.¹⁵

Conway Morris has shown, therefore, that there are only a limited number of solutions to various survival requirements, indicating that the possibilities for various types of sense faculty, for instance, are latent within the evolutionary pool of potentiality and are activated across widely different species, thus showing a 'convergence' towards the same solutions for evolutionary challenges. Evolution must follow the possibilities, patterns or seeds lying within the potentialities of the fundamental ground. And the conclusion he draws is that, contrary to the 'drunken walk' within a maze of mechanistic randomness viewpoint of various materialist evolutionary biologists, there is teleology towards the production of increasing levels of sentience within the ground potentiality of the process of evolution such that the end point of an organism having the kind of self-aware intelligence of human beings is an inevitability; however the stages along the way, of course, are arduous and, perhaps, replete with dead ends.

This viewpoint requires the conclusion that the potentialities for the evolution of sentient creatures necessarily resides within the ground of manifestation and is not a freak accident. In his book *Life Without Genes* Adrian Woolfson presents us with a poetic version of the sort of field of potentiality that he imagines must have 'existed' before the dawn of life within the universe:

In the beginning there was mathematical possibility. At the very inception of the universe fifteen billion years ago, a deep infinite-dimensional sea emerged from nothingness. Its colourless waters, green and turquoise blue, glistened in the non-existent light of the non-existent sun ... A strange sea though, this information sea. Strange because it was devoid of location ...¹⁶

This field, of course, can only be the quantum wavefunction of the universe, a universal wavefunction which contains:

...all possible histories ... through which the universe could have evolved to its present state...¹⁷

This perspective, of course, is completely harmonious with the Hawking-Mlodinow version; the quantum wavefunction of the universe contains all the future evolutionary possibilities for the development of sentient beings. And from out of the vast entangled web of infinite possibilities for manifestation only certain privileged members will actually make it into reality:

An information space of this sort would furnish a complete description of all potentially living and unrealizable creatures...¹⁸

The fact that not all possibilities for the manifestation of sentient beings and the environments inhabited by them are actualized, thereby leaving some potentialities as 'unrealized' is, again, in line with the Hawking-Mlodinow perspective, wherein many potentialities, the unlikely possibility of a cheese-moon being an example given by them, are weeded out by the choices that the universal consciousness, which at some point becomes embodied within evolved sentient beings, makes along the way. And, if we accept all the implications of the Hawking-Mlodinow perspective, we will also have to accept that, not only do the potentialities for the form of the eventually evolved sentient beings and their 'material' environments reside in the universal consciousness standing on the edge of time, but also the potentialities for the form of the experiences of such sentient beings also reside in the universal quantum consciousness.

Amit Goswami and Keith Ward, amongst others, identify the concept of 'God' with this universal consciousness. This, however, is a very theoretical point of view; for when we consider the actualized direct 'mystical' experience of the spiritual potentialities which must also potentially 'exist' within the indeterminate pool of unmanifested cosmic consciousness, then the Hawking-Mlodinow perspective must also apply, which means that the form in which spiritual experience manifest within experience must also to some degree depend upon the structure, form and surrounding cultural pressures of the experiencer in question. It is this insight which leads us to an *Epiontic Constrained Relativistic Metaphysics of Religious Diversity*. And in so doing it will become fully apparent that quantum physics, when not viewed through the distorting lens of an inappropriate materialist prejudice, lends support for a metaphysics of ultimate intentionality that reveals a spiritual nature at the heart of reality which, of necessity, will reveal itself in differing, although related, forms of expression.

At the outset it will be useful to be a clear about the implications of the words in the title of our target – the development of an Epiontic Constrained Relativistic Metaphysics of Religious Diversity:

Epiontic – Epistemology determines the manifestation of ontology; or perception creates experiential 'thingness' from quantum potentiality. This term relates to the fact that the manifestation of reality is not independent of mind. Although it certainly seems to be the case that the *form* of the manifestation of the material world, for instance, can not be whimsically determined at any time by one individual, or even a large group of individuals, it is nevertheless the way of things, if we are to believe Hawking, Wheeler and others, that it is determined over vast time scales by all sentient beings that have ever inhabited this universe, and also previous universes. When there are no sentient beings actually manifested within any particular universe it is the epiontic ('karmic') pressure from previous universes which motivates the evolutionary process on all levels of manifestation.

Recall Hawking's assertion that at the moment of the big bang there was the probability for a cheese moon or a moonrock moon, amongst others. Subsequently the 'epiontic' activity of the universe, which at some point becomes embodied within the activities of sentient beings, has determined that we currently live in a moonrock universe. If such is the case for the 'material' realm, which science likes to pretend is purely quantitative, how likely is it that a similar 'epiontic' principle does not also apply to the determination of qualitative aspects of the universe? In this context we will show that quantum physics sets the stage for the notion that an infinite pool of value and awareness underlies the process of reality. This infinite qualitative ground finds differing expressions, and can be activated within experience to differing degrees, through the epiontic activities of sentient beings.

Constrained – having limits. In the Hawking 'cheese moon' example we are surely right to ask whether it is really likely that there is the possibility of a universe containing a cheese moon actually being epiontically brought into existence; it surely more likely that there are an infinite range of potentialities for consistent and viable universes standing at the edge of time. In other words the possible potentialities are constrained by what is consistently possible for a viable functioning universe. So the range of potentialities which may become actualized within experience are constrained within the limits of what is possible; the structure of possible universes must be viable. It is surely unlikely that a moon made of cheese would be viable. There well may also be constraints for potentialities which derive from the existence of previous universes.

Relativistic – Relativism comes in various forms but the core insight is the fact that experience of reality is relative to the perceiver. The truth of this insight can be clearly seen by simply considering the way in which different species experience their environment depending on their sense faculties. Within the human sphere relativism can take various forms. Two of these are moral relativism and conceptual relativism. The first asserts that right and wrong depend upon cultural framework. Conceptual relativism, in its extreme form, denies that any system or framework of concepts is correct in the sense of exactly matching or fitting or corresponding to the structure of the world. There simply are no concepts that divide things up in a way that corresponds to the way things are truly divided up in nature.

Discussions of relativism are frequently marred by all-or-none thinking. Phrases like 'everything is relative' and 'anything goes' are often asserted. Such views, however, can be shown to be incoherent. In the present context they are ruled out because of the necessity of employing a 'constrained' version.

Here we are interested in religious relativism. The Indian religious traditions tend to be relativistic. Mahavira (599-527 BC), the twenty fourth enlightened master of the Jain religion, for instance, developed an early relativistic philosophy known as Anekantavada. Hindu religion has no metaphysical difficulties in accepting degrees of truth in other religions. A Rig Vedic hymn states that 'Truth is One, though the sages know it in various ways.' The Sikh Gurus (spiritual guides) have propagated the message of 'many paths' leading to the one God. Our aim is underpin this viewpoint from the point of view of the scientific evidence previously outlined. In particular the quantum 'epiontic' principle will be shown to necessitate this point of view.

Metaphysics – The delineation and explanation of the fundamental structure and process of reality.

Religious – Pertaining to religion, which is the systemization of paths to direct experiential insight into the ultimate spiritual nature of reality. A great deal of ‘religious’ activity down the centuries and today has been, and is, a perverted facsimile of true religion, a situation which has given rise to the current strident activity amongst the so called new-atheists. This is discussed below.

An important distinction which must be made at the outset is between the esoteric and exoteric faces of religion. The exoteric face of religion is the non-mystical, culturally and often politically enmeshed ‘external’ form of ritual practice, which often is accompanied with a blind adherence without any deep understanding of the true nature of the interiority of religious practice.

One suggestion for the derivation of the term ‘religion’ is that it is from the Latin verb *ligare* which means "bind, connect", so when prefixed *re-ligae* the meaning becomes to reconnect or bind back together. So this could be taken to indicate that an important aspect is to connect back together *all* the fragmented phenomena of the fragmented unity of the ultimate source of the process of reality. So often, however, the ‘binding’ which takes place on the exoteric level is sectarian and politically motivated, often giving rise to unthinking, blind ‘faith’ and politically motivated intolerance. When allied with human frailty and, unfortunately to say, often stupidity, this exoteric manifestation of the religious impulse does give rise to absurdity and reprehensible beliefs and practices. Such misguided beliefs and practices have become the focus for the acerbic critiques on the part of the ‘new atheists’.

Diversity – At minimum, the ultimate nature of reality must consist of an infinite pool of informational potentiality and value which also contains a cognitive function which is capable of unfolding the potentialities in a manner which produces the astonishingly vast and varied universe in which we have our being. The religious traditions, which articulate the value and spiritual aspects of the fundamental ground, are part of this diversity. Although the existence of an external and independent creator God of the Old Testament type, which is required by mainstream, non-mystical Christianity for instance, certainly cannot be rescued by a quantum expedition, the philosophical dimension of quantum theory has a radically revelatory impact for a more ‘mystical’ understanding of the authentic nature of spirituality which manifests in diverse, although constrained, forms. The infinite pool of value and awareness, which can be expressed as compassionate love, finds differing, although related, expressions within the diverse religious traditions and formulations.

The physicist David Bohm elucidated the spiritual implications of quantum theory which follow from his articulation of his notion of the ‘implicate order,’ a notion which corresponds to the mystical notion of a ‘ground of being’, as follows:

The implicate order does not rule out God, nor does it say there is a God. But it would suggest that there is a creative intelligence underlying the whole, which might have as one of the essentials that which is meant by the word ‘God’.¹⁹

Thus one view of the notion of God is that of an infinite unlimited intelligence, or consciousness-awareness, which gives rise to the multitude of limited consciousnesses

within the 'creation' of the dualistic realms of experience. However, it is always necessary to bear in mind that all our conceptual formulations of the ultimate are limited precisely because the ultimate is necessarily unlimited:

...any picture which we make through thought is limited ... Only the ultimate is unlimited. However, as you say more about the unlimited you begin to limit it. If you say "The unlimited is God, and by God I mean this and this and this," then you begin to limit it. I think it is essential not to limit God, if you believe in God.²⁰

The modern theologian John F. Haught, who views God in terms of an informational ground of reality, has written concerning such a grounding universal consciousness that:

...science would be inadequate to saying anything one way or the other about the supposed reality of that which is singularly informative. Human consciousness would have to adopt some other, perhaps non-scientific, mode of receptivity in order to attune itself to what is ultimately informative. Such a 'message' would lie beyond any ordinary or scientific capacity to grasp. It may be so novel and 'improbable,' that it would escape the grasp of objectifying consciousness altogether. We could be grasped by it, but we could not grasp it.²¹

According to Buddhist experiential metaphysics this is certainly true to the extent that the ultimate nondual nature can only be directly experienced. However, Buddhist philosophy and Sufi and Jewish mysticism do have a great deal to say about the nature of the relationship between the nondual ground and its manifestations.

A conclusion which seems secure on the basis of previous chapters is that before the beginning of time, so to speak, before the explosion into universal manifestation, we must conceive of the 'existence' of a timeless infinite pool of potentiality, a sea of potentiality which contains its own cognitive unfolding mechanism. Within Buddhism one term for this primordial ground is Buddha-nature:

Buddha-nature ... is emptiness and luminous clarity. It is the abiding reality of the primeval beginning of all phenomena, the abiding reality that is the indivisible truth of unity...²²

It is important to bear in mind here that 'emptiness' does not indicate 'nothingness,' although it is sometimes mistranslated in this way, it designates, rather, a ground of potentiality which is 'empty' of any particular manifestation.

The following extraordinary exposition of the Sufi metaphysical world-view maps us dramatically into the realm of the quantum universal ground (wavefunction) of potentiality:

The metacosmic cause of the phenomenon of multiplicity is All-Possibility, which coincides by definition with the Infinite, the latter being an intrinsic characteristic of the Absolute. The divine Principle, being the Sovereign Good, tends by this very fact to radiate, hence to communicate itself-to project or make explicit all the 'possibilities of the Possible'.²³

Here it becomes clear that the notion of the 'Sovereign Good' is used to indicate an ultimate principle that naturally contains within itself the necessity of the 'radiation' of the manifestation of the dualistic world of multiplicity. Within the Buddhist metaphysics this

requirement is taken care of by the indication that the fundamental ground contains the innate function of cognition. Within the Sufi proposal the ultimate ground also contains an inner necessity of radiation into multiplicity. The 'Infinite' by definition must contain all possibilities and therefore *must* by necessity contain the possibility its own manifestation. In his book *The Transcendent Unity of Religions* Schuon explains this as follows:

Creation (or Manifestation) is necessarily implied in the infinity of the Principle, in the sense that it is so to speak an aspect or consequence of this infinity. This amounts to saying that if the world did not exist the Infinite would not be Infinite; to be what It is the Infinite must apparently and symbolically deny Itself, and this denial is achieved in universal Manifestation. The world cannot but exist, since it is a possible and therefore necessary aspect of the absolute necessity of Being...²⁴

The Sufi view of the source of manifestation as an infinite field of potentiality clearly foreshadows the discoveries of modern science:

The fields postulated by relativity theory at the large and quantum theory at the level of the small are designators of potentiality, of dispositions, of 'what would happen if'. Energy itself is in a real sense an expression of potentiality. It almost seems that it is to the potential, rather than the actual, that reality should be attributed at the most fundamental level.²⁵

At the ground of reality lies a fundamental infinite field of potentiality from out of which the dualistic world of experience manifests. This dualistic world of manifestation arises because of an internal necessity for manifestation which resides within the fundamental field of potentiality which lies at the heart of reality.

The fundamental field of potentiality and the inner urge towards manifestation which resides at the heart of the fundamental field may be identified with the notion of the **Logos** (λόγος) which lies behind all manifestation. In Stoic philosophy, which began with Zeno of Citium c. 300 BC, the *logos* was the active reason pervading the universe and animating it. Philo (20 BC - 50 AD), a Hellenized Jew, used the term Logos to mean an intermediary divine being, or demiurge.

Philo followed the Platonic dichotomy between the imperfect material world and the realm of perfect ideas, or archetypes; intermediary beings were necessary to bridge the dramatic gap between God and the material world. The Logos was the highest of these intermediary beings, and was called by Philo "the first-born of God."²⁶ Philo also wrote that "the Logos of the living God is the bond of everything, holding all things together and binding all the parts, and prevents them from being dissolved and separated."²⁷

In his essay *God, Matter and Information*, however, the theologian Niels Henrik Gregersen proposes that the informational field should be identified with Logos and the cognitive function is to be viewed through the theological lens of the 'Holy Spirit', and he thereby places the doctrine of the trinity into the context of modern science:

God is present in the midst of the world of nature as the informational principle (Logos) and as the energizing principle (Spirit). Only the originating principle of the Father remains consistently transcendent, thereby responding to the metaphysical question: Whence the universe? Accordingly, the idea of the divine Logos answers

the question: Whence the informational resources exhibited in the history of the universe? Finally, the idea of the Spirit answers the question: Whence the energy and unrest of natural processes? It is only in the interplay between information (Logos) and energy (Spirit) that the world of creation produces evolutionary novelties...²⁸

Gregersen also points out that such a view derives from a 'remaining Platonizing element which resides in all kinds of theism'.²⁹

According to Philo's account the Platonic Ideas are located within the Logos, in the same way that potentialities reside within the quantum wavefunction, and the Logos (for Gregersen this is the function of the 'Holy Spirit') acts on behalf of God in order to unfold the physical world. In particular, Philo identified the Hebrew Bible Old Testament 'Angel of the Lord' with the Logos and he also suggested that the Logos was God's instrument in the creation of the universe.

In Sufism the notion of an angelic hierarchy, having its origin within the Logos, can be seen to correspond to the notion of a hierarchy of quantum archetypal 'templates' which devolve through quantum 'implicate orders' until they finally manifest on a fully manifested 'material' level:

A physics of Light can only be an angelology, because Light is life, and Life is essentially Light. What is known as the material body is in essence night and death; it is a corpse. Through the varying intensity of their luminescence, the Angels, the 'lords of the species', give rise to the various species, which the natural body can never account for. What Aristotelianism considers the concept of a species, the logical universe, ceases to be anything more than the dead body of an Angel.³⁰

In this context it is intriguing to consider the following from Professor Stapp's essay *Light as foundation of being*:

...recent technical developments in the quantum theory of light may allow quantum theory to be formulated as a unified theory of the physical world itself ... In this theory the electromagnetic field (i.e. light) plays a central role: it is the carrier of both classical properties and actual being itself.³¹

The Christian concept of the Logos is derived from the first chapter of the Gospel of John, where the Logos (often translated as "Word") is described in terms that are reminiscent of the ideas of Philo:

In the beginning was the Word, and the Word was with God, and the Word was God. He was with God in the beginning. Through him all things were made; without him nothing was made that has been made. In him was life, and that life was the light of men. The light shines in the darkness, but the darkness has not understood it.³²

Or as quantum physicist H. Dieter Zeh has pronounced:

If quantum theory appears as a 'smokey dragon' ..., the dragon itself may now be recognised as the universal wavefunction, greatly veiled to us local beings by the 'smoke' represented by our own entanglement with the rest of the world. However you turn it: *In the beginning was the wavefunction*.³³

The 'smokey dragon' was John Wheeler's affectionate term for the quantum mystery of existence:

In the other is a "great smoky dragon," which is how Dr. Wheeler refers sometimes to one of the supreme mysteries of nature. That is the ability, according to the quantum mechanic laws that govern subatomic affairs, of a particle like an electron to exist in a murky state of possibility - to be anywhere, everywhere or nowhere at all - until clicked into substantiality by a laboratory detector or an eyeball.

Dr. Wheeler suspects that this quantum uncertainty, as it is more commonly known, is the key to understanding why anything exists at all, how something, the universe with its laws, can come from nothing. Or as he likes to put it in the phrase that he has adopted as his mantra: "How come the quantum? How come existence?"

Standing by the window in his third-floor office in Princeton's Jadwin Hall recently, Dr. Wheeler pointed out at the budding trees and the green domes of the astronomy building in the distance. "We're all hypnotized into thinking there's something out there," he said.³⁴

What Wheeler is suggesting is that we are 'hypnotized' into thinking that there is something independently and materially 'real' out there! What seems to be increasingly more likely, however, is that we are all participants in 'God's sensorium'.

It seems that it is often the case that when scientists and philosophers think about such issues as the ground of reality and its potentiality for manifestation, or similar considerations, there is always the implicit assumption that it is the 'material' world that is the primary aim of manifestation. Physics began with an investigation of the functioning of what appears to be the 'material' world so for physics the 'material' world, which we now know does not actually exist as independent 'material' world, has remained central, *even when it has disappeared*. It rarely occurs to conventional thinker that the appearance of a seemingly material world is only a convenience within which sentient beings, the carriers of awareness, can function in the dualistic world within which consciousness can be refined in the direction of universal awareness. David Bohm is one of the few physicists to clearly discern that it is the qualitative dimension of the process of reality that is ontologically foremost:

Rather than ask what is the meaning of the universe, we would have to say that the universe *is* its meaning. ... And of course, we are referring not just to the meaning of the universe for us, but its meaning 'for itself', or the meaning of the whole for itself.³⁵

This perspective is embodied in dramatic fashion in the Buddhist Mahayana view that the final goal of sentient existence is omniscience, the state wherein the practitioner divines directly the qualitative nature of the universal meaning-quality. Thus Buddhist scholar Sara L. McClintock tells us that for the eighth century Buddhist pandits Santarakshita and Kamalasila:

Omniscience is not one doctrine among others for these thinkers but rather the highest good and final destination of all those who seriously value and practice rational enquiry.³⁶

Omniscience in this context should not be construed as knowledge of such items as 'the number of bugs in the world' but, rather, a direct knowledge of the nondual nature of the

ground of reality. However, it is also the case that such an omniscient state is claimed by some mystical traditions to confer certain supernormal powers. In theistic religions this aim for omniscience is expressed by mystics as the achievement of union with God or similar. In both cases, however, it may be said that the practitioner has somehow refined his or her consciousness until it is able to plumb the depths of the ground of manifestation and become in some sense identical with it.

So, although it is true that the ground of reality clearly contains the potentialities for the appearance of the seemingly material world, the most significant potentialities within the infinite ground of potentiality are those which are the seeds for universal awareness, love and compassion. The seemingly material world is a mere container within which sentient beings can learn to develop such universal qualities of transcendence. In other words it is the spiritual qualities latent within the heart of primordial reality which are the primary reason for the 'radiance' of manifestation, not the epiphenomenon of the seemingly material world. As a Sufi hadith (saying) formulates the metaphysical situation:

I was a hidden treasure and I longed to be known.
So I created both worlds, the visible and the invisible,
In order that My hidden treasure
Of generosity and lovingkindness would be known.³⁷

This hadith is beautifully elucidated by Henry Corbin in his book *Alone with the Alone* when he explains Ibn 'Arabi's notion of the 'Pathetic God', an ultimate source of manifestation which longs to know itself by being known by its created creatures:

...let us recall the hadith which all our mystics of Islam untiringly meditate, the hadith in which the Godhead reveals the secret of His passion (his *pathos*): "I was a hidden treasure and I longed to be known. Then I created creatures in order to be known by them." With still greater fidelity to Ibn 'Arabi's thought, let us translate: "in order to become in them the object of my knowledge." This divine passion, the desire to reveal Himself and to know Himself in beings by being known by them, is the motive underlying the entire divine dramaturgy, an eternal cosmogony.³⁸

Thus the creative ground of manifestation naturally creates sentient beings from its own potentialities in order for them to become carriers of consciousness-awareness in the dualistic world in order that ultimate Being knows itself through sentient beings. It is this perspective which is fully in accord with modern science.

As Professor Stapp indicates, the new quantum perspective offers an extraordinary opportunity for human beings to understand and engage with the process of reality in a much more interconnected and spiritually committed fashion:

This conception of nature in which the consequences of our choices enter not only directly in our immediate neighborhood but also indirectly and immediately in far-flung places, alters the image of the human being, relative to the one spawned by classical physics. It changes the image of the human being in a way that must tend to reduce any sense of powerlessness, separateness, and isolation, and to enhance the sense of responsibility and of belonging. Each person who understands himself or herself in this way, as, in some sense, a spark of the divine, with some small part of the divine power, integrally interwoven into the

process of the creation of the psycho-physical universe, will naturally be encouraged to participate in the process of plumbing the potentialities of, and shaping the form of, the unfolding reality that it is his or her birthright to help create.³⁹

It is quite clear that the new quantum perspective indicates that all sentient beings carry a small part of the infinite awareness-consciousness which lies within the heart of reality. This also means that, as John Wheeler in the twentieth century and Buddhist philosophers for at least the last two thousand years have suggested, sentient beings are the agents through which the epiontic ground of the process of reality creates the dualistic world of experience. Furthermore human beings, because of their greater sphere of free-will are primarily responsible for the fate and nature of the universe on all levels of manifestation. And, as Stapp, Wheeler, Zurek and others indicate, the intentions and perceptions of sentient beings have a universal impact upon the quantum ground, vanishingly tiny though it may be for any particular individual being.

This impact of the intentionality and perceptual activities of sentient beings upon deep levels of the quantum Mindnature universe is such that, as Wheeler and others have clearly indicated, the actual fabric of the appearance of the material world is produced, over vast time scales, by the quantum epiontic mechanism. In fact it seems as if *we live in an Epiontic Universe within which the perceptions and activities of all sentient beings determine how, within the limits of the available potentialities, the universe actually manifests.*

If this is true of the seemingly material realm it must also be true of the spiritual realm. This is indeed a remarkable upshot; an understanding of the epiontic quantum nature of the process of reality gives us a precise insight to the nature of the 'constrained relativism' of mystical religious 'symbolic forms.' It must be the case that the manifestation of the qualitative spiritual ground of reality will depend upon the ways in which the spiritual dimension of reality has been epiontically perceived by human beings over long time periods.

The German neo-Kantian idealist philosopher Ernst Cassirer, in his life's major work *The Philosophy of Symbolic Forms* presents the universal development of experience and thought as a quest on the part of a universal Mind, or Spirit (*Geist*) which is in search of its own nature. In this unfolding universal process a fundamental spiritual 'basis phenomena,' which is the 'empty' realm of potentiality underlying the process of unfoldment, manifests into the dualistic experiential world by being embodied, and thereby experienced, within various symbolic forms. The major symbolic spheres that Cassirer explored in his masterpiece were of language, myth, art, objectified scientific thought and so on. The principle that an indeterminate, yet infinitely potent and fecund, sphere of potentiality manifests into actuality through a multiplicity of forms should be clearly familiar to the reader; it is the fundamental universal process through which the quantum Mindnature manifests into the perceiving organisms of all sentient beings!

The point is that at the level of human beings sentient organisms reach a level of evolution at which they rise above the purely instinctual sphere and develop a self-awareness which is capable of turning back and examining its own nature. Cassirer describes his philosophical task as follows:

The 'philosophy of symbolic forms' grows out of this critical, transcendental question and builds upon it. It is pure 'contemplation,' not of a single form, but of all - the cosmos of pure forms - and seeks to trace this cosmos back to the 'conditions of its possibility.'⁴⁰

So, according to Cassirer, it is possible to discern a fundamental necessary structure underlying the possibility of all the various cultural symbolic forms. Within quantum theory we find that physics has actually, inadvertently, achieved a similar situation, the ground of the possibility of the manifestation of the spheres of objectivity – the apparently material world – and the subjectivity of consciousness is precisely the quantum realm of potentiality. So the answer to Penrose's question:

Might a quantum world be *required* so that thinking perceiving creatures, such as ourselves, can be constructed from its substance? Such a question seems more appropriate for God, intent on building an inhabited universe...⁴¹

...is clearly 'Yes.' It is precisely because the 'quantum world' is essentially Mindnature that 'thinking perceiving creatures, such as ourselves can be constructed from its substance.' If the quantum realm of potentiality were not to be Mindnature this would not be possible. The fact of quantum Mindnature also accounts for the fact that the most evolved consciousnesses of human beings can take off into a symbolic realms of representational thought and expression.

Furthermore, according to the mystical religious perspectives there is a realm of evolved awareness beyond this. This is the nondual 'mystical' direct experience of the nature of pure Mindnature, it is the achievement of a universal awareness wherein the division between the limited mind of a sentient and the Mindnature of the universe dissolves. In the following Sufi description the Universal Mindnature is given the familiar theistic designation, according to the Sufi scholar Seyyed Hossein Nasr it is:

...possible for us to awaken from our earthly day-dreaming and fulfil the ultimate reason d'être of being human, that is loving and knowing God, which means realizing the perfect state of servanthood combined with intimacy with the Divine and, through the transparency of our outer self, allowing God within us 'to know' himself.⁴²

In this extraordinary formulation there is contained the essence of the mystical worldview, a worldview, furthermore, which is in full accordance with the quantum evidence. In our investigations it has become clearly evident that the quantum ground of reality is nothing *less* than an infinite ground of 'empty' potentially which has internal to its own nature a vast capacity to unfold its own potentialities through infinite acts of cognition. In a sense we might say that this ground is omnipotent because it is the ground of all manifestation, and it is omniscient because it contains the seeds of all knowing. Furthermore when embodied within enlightened beings it becomes the all-knowing omniscient awareness beyond duality.

We have further seen that there is an internal intentionality within the process of evolution to generate organisms which are capable of developing ever increasing levels of consciousness, levels of awareness growing towards universal awareness coextensive with the Universal Mindnature, or the God consciousness, itself. There is, then, an Aristotelian teleology towards a 'final' point within evolution; a teleology described within Sufism as 'allowing God within us 'to know' himself.'

The Catholic mystic philosopher Pierre Teilhard de Chardin refers to this process as the 'Personalising Universe' becoming 'personalised' in order to reflect its own nature:

...what is the work of works for man if not to establish, in and by each one of us, an absolutely original centre in which the universe reflects itself in a unique and inimitable way? And those centres are our very selves and personalities. The very centre of our consciousness, deeper than all its radii; that is the essence which Omega, if it is truly to be Omega, must reclaim.⁴³

The 'Omega Point' is the point at which the limited ego dissolves into the 'impersonal' energy of the universe.⁴⁴

Within Buddhism the final state of enlightenment is referred to as Buddhahood. The embodied mind of human beings can be trained, admittedly with much difficulty, to directly perceive the ultimate nature of reality. Such a mind is the mind of a buddha, a fully awakened being; and the mind of a buddha is omniscient, knowing the nature of all objects, and encompasses all the potentialities for all manifestation. The *Ornament of Sutras* says:

Buddhahood is all phenomena,
But it is no phenomenon whatsoever.⁴⁵

In other words the mind of a buddha, or fully enlightened being, does not collapse the quantum wavefunction of the process of reality but embraces the entire 'expanse of phenomena' (*dharmadhatu*). Buddhahood contains an awareness of all possibilities; therefore it embraces 'all phenomena.' However to produce a phenomenon the quantum wavefunction must collapse into a definite manifestation; it therefore follows that Buddhahood is 'no phenomenon whatsoever'. As the sutra also says:

With regard to the stainless expanse of dharmas (phenomena),
The explanation of the profound characteristics
The state and the activity of the Buddhas
Is nothing but sketching a colorful painting onto the sky.⁴⁶

Buddhahood is conceived of as becoming coextensive with the Mindnature of the universe which is why the Zen master Hung Po explains the core Zen perspective:

This pure Mind, the source of everything, shines forever and on all with the brilliance of its own perfection. But the people of the world do not awake to it, regarding only that which sees, hears, feels and knows as mind. Blinded by their own sight, hearing, feeling and knowing, they do not perceive the spiritual brilliance of the source substance. If they would only eliminate all conceptual thought in a flash, that source substance would manifest itself like the sun ascending through the void and illuminating the whole universe without hindrance or bounds.⁴⁷

When Teilhard de Chardin wrote his book *The Phenomenon of Man* prior to 1955 it is probably true to say that the full implications of the quantum revolution were still not widely and fully appreciated. The 'epiontic' paradigm of quantum Darwinism was 50 years in the future. But what de Chardin tried to outline in his book was a vision that consciousness, awareness or a deep fundamental spirituality was the driving force for evolution on all levels - that of the universe itself and the life within. In fact de Chardin's vision is fully Anthropic

in the sense that he considered that the universe does have a purpose: that of creating the greatest number of universally aware sentient organisms, what Buddhism calls enlightened human beings or buddhas, as possible. The universe is an awareness-enlightenment machine which is only functioning in order for sentient beings to become aware of the Universal Awareness which is the driving force for manifestation. Because this is the universe's primary 'purpose' Seyyed Hossein Nasr refers to 'ultimate reason d'être of being human' as being that of 'allowing God within us 'to know' himself,' God here meaning exactly the Universal Mind-nature which creates the universal process and then 'seeks' knowledge of its own nature through being embodied within sentient beings.

Whilst Teilhard de Chardin's work remains both thought provoking for many and inspirational for some, it cannot, because of the nature of the evidence that the author is appealing to, provide a complete validation of its thesis. The perspective of the current work, however, can hardly do other than suggest that quantum theory provides a thorough foundation for a mystical view of religious worldviews. As we have seen Henry Stapp has no issue with pronouncing that the evidence of quantum theory:

...is concordant with the idea of a powerful God that creates the universe and its laws to get things started, but then bequeaths part of this power to beings created in his own image, at least with regard to their power to make physically efficacious decisions on the basis of reasons and evaluations.⁴⁸

But, in fact, a full appreciation of the fact should lead us to even stronger statements because the quantum evidence is, not only concordant with, it is, as we have seen, actually precisely metaphysically isomorphic with Buddhist conclusions that the ultimate nature of reality is 'emptiness and cognizance inseparable', which is why Professor Vlatko Vedral tells us that:

Quantum physics is indeed very much in agreement with Buddhistic emptiness.⁴⁹

The following description of the manifestation of multiplicity from the Ultimate Unity of God, according to the Jewish Mysticism of the Kabbalah, is remarkably consistent with the Sufi perspective touched upon earlier:

According to the Kabbalah, the emergence of the universe into existence, and its development leading to the emergence of an autonomously willed being, was a process involving increasing differentiation, fragmentation of the initial unity, and loss of the original harmony and symmetry of the cosmos. When the universe does not exist, there was only God. When the universe exists, there exists other than God - the universe. Thus, in order to create a universe, God must seemingly fragment somewhat the Divine unity and unique existentiality - a fragmentation which is however real only from the perspective of the beings inhabiting this physical universe rather from the perspective of the divine unity.⁵⁰

And the following passage from the thirteenth-century German scholar and mystic Meister Eckhart resonantly echoes the preceding formulations:

Though creatures here are manifold they are but one single idea in God. God in himself is just the *one alone*. When creature goes back to her first cause she knows God simply as one in form and essence and threefold in operation. What intellect knows is knowledge and knowledge stops at what is known, with what is known becoming one. Into the simple idea no knowledge ever entered, for this impartible

exemplar after which God created all creatures towers God-high above creatures. Creature in pursuing God to his eternal heights must mount above all creatures, nay beyond her very self, her own wont and uses, and follow agnosia (knowledgelessness) into the desolate Godhead. St Dionysius says, 'God's desert is God's simple nature.' A creature's desert is her simple nature. In the desert of herself she is robbed of her own form and in God's desert, leading out of hers, she is bereft of name; there she is no more called soul, she is called God with God.⁵¹

Here, again, we find an emphasis that God, or the Ultimate Unity, is the sole reality. The multiplicity of the perceptual realm of duality is actually an illusion created by a 'threefold operation' through which the dualistic realm comes into being. In order to achieve direct nondual knowledge of the Ultimate, therefore, it is necessary to go 'beyond her very self' ('her' being indicative of the individuated 'soul') into a realm of nondual consciousness which is 'bereft' of, or beyond, names or concepts. And such a state would clearly be also bereft of the concepts of both 'self' and 'God'; hence it is described as a desert; a conceptual desert which can be a disconcerting and frightening place.

Vedanta is the central mystical formulation of Hinduism. This tradition asserts that the apparently individuated selves of sentient beings, called the Atman, are actually manifestations of the Universal Self, or Brahman, and are in essence identical to Brahman. A pithy summary of the Vedanta doctrine is contained in the formula 'Tat tvam asi', which translates as 'Thou art that'; the Atman is actually identical to Brahman. When an Indian teacher of Vedanta was shown writings by Meister Eckhart he refused to believe that Eckhart had not been tutored in Vedanta, and it is easy to see why.

According to Meister Eckhart the achievement of a nondual knowledge of the Ultimate Reality of God requires going beyond the self. And according to all forms of Buddhism the deconstruction of the notion of an independent 'self' is also required in order to move towards a direct understanding of the ultimate nature of reality. Here is the exact same requirement articulated within the mystical path of Sufism:

You name His name; go, seek the reality named by it!
 Look for the moon in the sky, not in the water!
 If you desire to rise above mere names and letters,
 Make yourself free from self at one stroke.
 Become pure from all attributes of self,
 That you may see your own bright essence,
 Yea, see in your own heart the knowledge of the Prophet...⁵²

And a similar message that the dualistic realm of the limited self is an illusory dream from which it is possible to wake up in order to perceive pure nondual reality is also central to the Gnostic tradition (4th – 5th century CE). The following is from the Nag-Hammadi Gospel of Truth:

They were ignorant of the Father, he being the one whom they did not see ... there were many illusions at work ... and they were empty fictions, as if they were sunk in sleep and found themselves in disturbing dreams. ... When those who are going through all these in the midst of all these things wake up, they see nothing, they who are in the midst of all these disturbances, for they are nothing. Such is the way of those who have cast ignorance aside from them like sleep, not esteeming it as

anything, nor do they esteem its works as solid things either, but they leave them behind like a dream in the night. The knowledge of the Father they value as the dawn. This is the way each one has acted, as though asleep at the time he was ignorant. And this is the way he has come to gnosis, as if he had awakened.⁵³

In this formulation the unity of ultimate reality is referred to as the 'Father', a term which clearly symbolic and metaphorical.

The Buddhist Dzogchen, or Great Perfection, teachings take the radical point of view that the illusory and 'miraculous field of play' is complete and 'perfect' in itself when seen from the ultimate vision of nonduality:

The nature of multiplicity is nondual
 And things in themselves are pure and simple;
 being here and now is construct free
 and it shines out in all forms, always all good;
 it is already perfect, so exertion is redundant
 and spontaneity is ever-immanent.
 All and everything emanates from me,
 so all and everything, whatever appears,
 is revealed as transmission,
 revelation of the timelessly pure reality-field.
 All outer and inner is the timeless field of reality
 and in such a miraculous field of play
 Buddha and sentient beings are not distinct-
 so why try to change anything?⁵⁴

This amazing con-trick that Universal Mindnature plays on itself is exactly the production of an ultimately illusory dualistic realm of perception in order to 'know-itself' more deeply.

In all these formulations of the mystical religious worldview we find the same essential metaphysical structure which consists of:

- A non dual Mindnature ground of infinite potentiality which can only be known by direct nondual experience. This realm is 'physically' indicated by the mathematical description of the quantum wavefunction. However, if the descriptions of mystical experiences are correct then the direct experience of this realm would indicate something beyond this kind of 'physical' description. The wavefunction description only indicates gross solidificatory movements of quantum Mindnature as it functions on the 'material' level.
- Because of the internal cognitive function of the Universal Mindnature a vast illusion-like phantasmagoria of the experiential realms manifest through descending quantum 'implicate' levels until embodied sentient beings are established within a seemingly 'material' realm. Because of their seeming material embodiment sentient beings loose awareness of the source which gave rise to their temporary natures and they become lost in the dreamlike appearances (which do appear very 'real')

Mystical, or esoteric, religious traditions, emphasizing interior practices which transform consciousness towards experience of nonduality can be used to 'heal' the apparent division

between the nondual source and the internally generated productions, which are, from the ultimate point of view, illusory.

The much admired Swiss 'comparative religionist' Frithjof Schuon was one of the first scholar-practitioners of mystical religion to make the esoteric-exoteric distinction of primary significance in his understanding and presentation of the subject. For him this distinction was associated with the concomitant distinction between the metaphysical insight required for an esoteric understanding and the 'dogmatic', inflexible attitude which tends to accompany a lack of metaphysical insight exemplified in an 'exoteric attitude. In his seminal work *The Transcendent Unity of Religions* he writes:

The purely 'theoretic' understanding of an idea, which we have so termed because of the limitative tendency that paralyzes it, may justly be characterized by the word 'dogmatism'; religious dogma in fact, at least to the extent to which it is supposed to exclude other conceptual forms ... represents an idea considered in conformity with a theoretic tendency, and this exclusive way of looking at ideas has even become characteristic of the religious point of view as such. A religious dogma ceases, however, to be limited in this way once it is understood in the light of its inherent truth, which is of a universal order, and this is the case in all esotericism.⁵⁵

According to Schuon there is a 'higher', more direct level of spiritual understanding which operates beyond the 'theoretic' or merely conceptual level and, whereas the theoretic mode of understanding, when completely devoid of the direct, 'metaphysical' insight and understanding, becomes ossified into dogmatism, whilst the direct metaphysical insight grasps the spiritual object non-dualistically. Direct metaphysical insight grasps the spiritual nature of reality by becoming it.

A useful analogy here is with Roger Penrose's view of the implications of Gödel's theorem, a dramatic theorem of mathematical logic which showed that mathematicians must have intuitions of mathematical truth which operate beyond what can be demonstrated logically or 'theoretically.' According to Penrose this suggests that the human mind has faculties which operate beyond the purely algorithmic or computational; it has a kind of direct route to mathematical knowledge. Schuon is suggesting that a similar situation is the case in the spiritual domain; there is a mode of direct spiritual insight, which Schuon calls 'metaphysical', that knows the spiritual 'object' by becoming coextensive with it:

...a theoretical notion may be compared to the view of an object. Just as this view does not reveal all possible aspects, or in other words, the integral nature of the object, the perfect knowledge of which would be nothing less than identity with it, so a theoretical notion does not itself correspond to the integral truth, of which it necessarily suggests only one aspect, essential or otherwise. In the example just given, error corresponds to an inadequate view of the object whereas a dogmatic conception is comparable to the exclusive view of one aspect of the object, a view that supposes the immobility of the seeing subject.⁵⁶

Another illustration given by Schuon is that of a circle. There are an infinite number of points on the circumference from which to view the centre. Those close together represent views which can easily coexist in mutual harmony; however those views which are from points on opposite sides of the circle represent 'theoretical' views which may seem completely

contradictory for those located at those points. For someone at the centre, however, the contradiction does not appear to be such.

This illustration is usefully amplified when we consider the situation within quantum physics in the early years when the phenomenon of quantum 'wave-particle' duality, which is the fact that quantum entities can either appear as waves of probability or 'particles' *depending on how you decide to look at them*, produced a deep sense of shock amongst physicists. Here one finds exactly the kind of situation Schuon is referring to; seemingly contradictory results are obtained depending on the point of view adopted. And this contradiction is obtained through adopting differing perspectives concerning how to 'measure' quantum reality; can we really expect no seeming contradictions or paradoxes in the description of spiritual reality?

The story of the polarisation of 'dogmatic' viewpoints adapted by the founding fathers of quantum theory Schrödinger and Heisenberg is intriguing in this context:

Heisenberg understood that Einstein and Schrödinger wanted 'to return to the reality concept of classical physics or, to use a more general philosophic term, to the ontology of materialism.' The belief in 'an objective real world whose smallest parts exist objectively in the same sense as stones and trees exist, independently of whether or not we observe them', was for Heisenberg a throw-back to 'simplistic materialist views that prevailed in the natural sciences of the nineteenth century'.⁵⁷

Although Schrödinger's viewpoint was not quite as crudely rooted in materialism as Heisenberg presents it, he did want to think of his equation as representing something 'physically' and independently existent, suggesting that it might be 'intimately connected to the cloud like distribution of electric charge as it travelled through space'.⁵⁸ Heisenberg, on the other hand, emphasised the:

...subjective element in atomic events, since the measuring device has been constructed by the observer, and we have to remember that what we observe is not nature in itself, but nature exposed to our method of questioning.⁵⁹

Heisenberg's 'matrix mechanics,' therefore brings to the fore a kind of discontinuous spontaneity within the interdependent matrix of observer and observed which did not entail the necessity for a deeper substantiality.

But, whereas Buddhist and Sufi metaphysical philosophy, for example, find no problem with an ultimately inexpressible reality that gives rise to interdependent yet seemingly contradictory perspectives, both Schrödinger and Heisenberg were thoroughly convinced of the inherent 'truth' of their respective positions. Because of the 'lack of visualisation' in matrix mechanics Schrödinger felt 'repelled' by Heisenberg's view. Heisenberg, on the other hand told Wolfgang Pauli:

What Schrödinger writes about the visualizability of his theory is probably not quite right,' in other words its crap.⁶⁰

How remarkable, then, that Schrödinger demonstrated that these two ways of conceiving the quantum realm, which really did appear to be very different, are mathematically equivalent, or are different mathematical formulations of the 'same' underlying process of reality!

As Ibrahim B. Syed points out:

The atomic and subatomic world itself lies beyond our sensory perception. The knowledge about matter at this level is no longer derived from direct sensory experience, and therefore our ordinary language, which takes its images from the world of the senses, is no longer adequate to describe the observed phenomena. As we penetrate deeper and deeper into nature, we have to abandon more and more of the images and concepts of ordinary language. From this point on, it could no longer rely with absolute certainty on logic and common sense. Quantum physics provided the scientists with the first glimpse of the essential nature of things. Like the Sufis the physicists were now dealing with a nonsensory experience of reality and, like the Sufis, they had to face the paradoxical aspects of this experience.⁶¹

Indeed the great founding father Niels Bohr consistently spoke of the need to give up the urge for 'visualizability' at the quantum level and the necessity for accepting paradoxical formulations which seemed to defy common modes of language. Science, however, rejects out of hand the notion that there might be 'higher' and more direct ways of gaining insights into the inner nature of reality. This 'dogmatic' belief, however, is rejected by 'mystical' religious traditions which assert that they have transformative practices by which the mind of a practitioner may have direct non-conceptual insight into the ultimate nature of reality:

To the physicist the realms of the atomic and subatomic world; in Tasawwuf they are nonordinary states of consciousness in which the sense world is transcended. Both for the physicists and the Sufis, the multidimensional experiences transcend the sensory world and are therefore almost impossible to express in ordinary language. Quantum Physics and Tasawwuf are two complementary manifestations of the human mind; of its rational and intuitive faculties.

'Tasawwuf' is the Sufi term for practices of self-development leading to such direct insight into nondual and nonconceptually experienced ultimate reality.

In the introduction to this book the recent Horizon programme *Before the Big Bang* was mentioned. Shortly after there appeared a review of the program in the online Scientific God journal within which the author gives the list of the cosmological viewpoints advanced as ultimate explanation during the course of the programme:

- Multiverse inspired eternal inflation
- Big Bounce due to repulsive gravity at small distances
- Black Holes spawning baby universes
- Vacuum fluctuation from empty space
- Colliding Branes
- The future is empty expanding space = a new big bang
- String cosmology

The reviewer then points out that:

The obvious conclusion to draw is that there are a lot of viable theories out there which cannot all be right. Each of the scientists seemed to have quite a strong belief in the theory they supported,⁶²

Here we see an example of what Schuon calls the 'theoretic' and 'dogmatic' attitude as it currently operates within science. Each physicist considers that his or her version, held as an absolute, fixed and final description of reality, or the very beginning of 'reality' in this case, must be correct to the exclusion of all the others. The idea that there may be apparently contradictory or paradoxical views of a multifaceted and multifaceting process of reality never seems to enter anyone's mind. And yet quantum theory has already clearly shown us that the process of reality must be paradoxically subtle.

Furthermore, the issue of the existence, nature and possible creative involvement of consciousness was not mentioned during the course of the programme, and yet all concerned thought they were offering a 'Theory of Everything', often abbreviated to the 'TOE.' But surely without the inclusion of consciousness any such TOE wouldn't have a leg to stand on!

Quantum theory has clearly indicated that the nature of reality is such that it involves consciousness. In fact the essential nature of the entire universe, although most of it seems to be solidified, is quantum Mindnature. The physicist explores the quantum movements of this Mindnature as it constructs the 'illusion' of the material world, whereas the mystic explorer turns inwards and employs sophisticated techniques to explore Mindnature directly:

The principal theories and models of modern physics lead to a view of the world, which is internally consistent, and in perfect harmony with the views of Tasawwuf [spiritual development]. The significance of the parallels between the world-views of physicists and Sufis is beyond any doubt. Both emerge when man inquires into the essential nature of things-into the deeper realms of matter in physics; into the deeper realms of consciousness in Tasawwuf-when he discovers a different reality behind the superficial mundane appearance of everyday life. Physicists derive their knowledge from experiments whereas Sufis from meditative insights.⁶³

And, just as Schrödinger and Heisenberg found that different mathematical descriptions applied to what Bohr claimed to be an essentially conceptually unvisualizable reality, is it not likely that there might be different, yet 'complementary' when seen from a 'higher' more esoteric level, views of the inwardness of spiritual reality.

Figure 1 is based on an illustration given in Schuon's *Transcendental Unity of Religions*. It indicates how the nondual transcendental quantum Mindnature source, which in some traditions is called 'God,' of the 'physical' and spiritual dimensions of the process of reality also gives rise to different, yet interrelated descriptions of the metaphysical structure of its own manifestation, the structure that has been outlined above. Schuon beautifully describes the intellectual flexibility required to fully appreciate the metaphysical situation, which is a form of religious constrained relativism, as follows:

...one may then speak of an 'intellectual space,' namely, the cognitive all-possibility that is fundamentally the same as the Divine Omniscience, and consequently of 'intellectual dimensions' that are internal modalities of the Omniscience: Knowledge through Intellect is none other than the perfect participation of the subject in these modalities, ... When speaking, therefore of the

understanding of ideas, we may distinguish between a dogmatic understanding of ideas, comparable to a view of an object from a single viewpoint, and an integral and speculative understanding, comparable to the indefinite series of possible views of the object, views that are realized through indefinitely multiple changes of point of view.⁶⁴

However, it is important not to interpret this 'relativistic' perspective as suggesting that these various esoteric religious views do not function to disclose the ontological depth of the ultimate spiritual domain of reality. *In an epiontic universe the epistemological lenses adopted to engage with reality determines how the ontological possibilities manifest, as long as the possibilities do exist as potentialities within the spiritual ground.* It is this fact that makes the epiontic paradigm the true basis for a deep and thoroughly coherent understanding of the multiverse of mystical religious traditions.

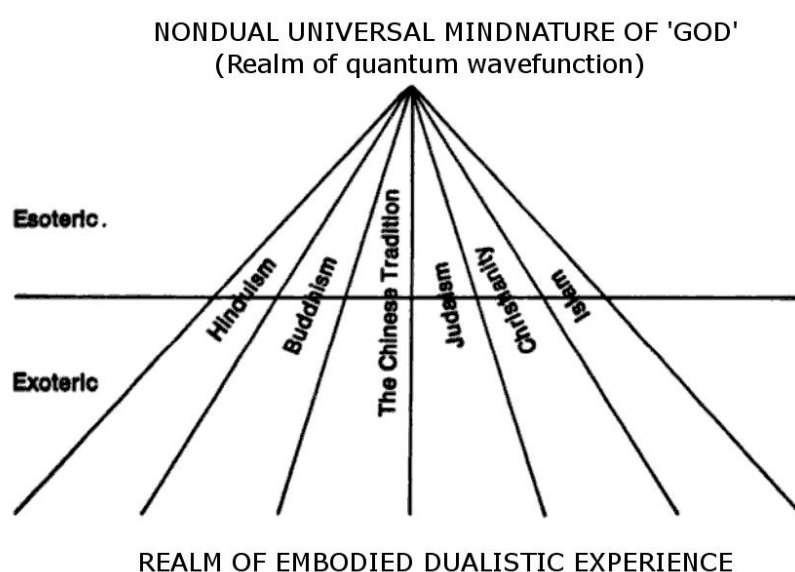


Figure 1

Henry Corbin describes the Sufi mystic Ibn 'Arabi's view of the way in which the ultimate spiritual source of manifestation may take on various forms as it is refracted through the psycho-spiritual constitutions of human beings as follows:

Among many other such expressions there is, for example, this line from Ibn 'Arabi's poems: "By knowing Him, I give Him being." This does not mean that man existentiates the divine Essence, which transcends all naming and all knowledge; it refers to the "God created in the faiths", that is to say, the God who in every soul takes the form determined by that soul's belief, knowledge, and aptitude, becoming a symbol that reflects the very law of that soul's being. The line means roughly this: I know God in proportion to the Names and attributes that are epiphanized in me and through me in the form of beings, for God epiphanizes Himself to each of us in the form of what we love; the form of your love is the form of the faith you profess.⁶⁵

The full extent and power of the infinite potentiality of the ground of manifestation, which 'transcends all naming and all knowledge' obviously cannot fully manifest within the limited being of an individual; the ultimate is given a manifest form within the dualistic world through the constitution, interests, capacities and cultural environment of any individual engaged in spiritual practice. It is this necessity which underlies the truth of the metaphysical requirement that there will be religious diversity which none the less reflects the transcendental unity of the ultimate nondual ground:

Reality affirms itself by degrees, but without ceasing to be the "one," the inferior degrees of this affirmation being absorbed, by metaphysical integration or synthesis, into superior degrees. This is the doctrine of cosmic illusion: the world is not only more or less imperfect or ephemeral, but cannot even be said to 'be' at all in relation to absolute Reality, since the reality of the world would limit God's Reality and He alone "is." Furthermore, Being Itself, which is none other than the Personal God or Being is simply the first determination from which flow all the secondary determination from which flow all the secondary determinations that make up cosmic Existence.⁶⁶

William Stoddard likens the diversity of various mystical paths which are all vehicles towards the nondual experience of unicity to a metaphysical cone of which the pinnacle is the final goal and the various paths begin at various points around the circular base:

The radial, upward, pathways are the mystical paths. The oneness of mysticism is a reality only at the point that is the summit. The pathways are many, but their goal is one. As they approach this goal, the various pathways more and more resemble each other, but only at the Summit do they coincide. Until then, in spite of their resemblances and analogies, they remain separate, and indeed each path is imbued with a distinctive perfume or color-Islamic mysticism is clearly not Christian mysticism-but at the Summit these various colors are ... reintegrated into the uncolored Light. Islamic mysticism and Christian mysticism are one only in God.

In Western thinking it is often considered that such spiritual pathways are merely 'subjective'. But, as Stoddard points out, it is a mistake to think of such pathways towards the nondual experiential unitary goal as being purely 'subjective'. The quantum physicist Nick Herbert has concluded that:

every quantum system has both an 'inside' and an 'outside', and that consciousness both in humans as well as in other sentient beings is identical to the inner experience of some quantum system. A quantum system's outside behavior is described by quantum theory, it's inside experience is the subject matter of a new 'inner physics'⁶⁷

Herbert mistakenly considers that there is the necessity for a 'new inner physics', in fact it is exactly this 'inner physics' of esoteric mysticism that we are exploring here. For, in the same way that the seeming material world is etched into the potentialities of the quantum ground, so too spiritual pathways can also be epiontically laid down by advanced practitioners, and subsequently maintained by devotee-practitioners, within the qualitative aspect of the 'quantum system' of the process of reality.

As we have seen it is the operation of the 'subjective' perceptual, 'epiontic, activities of vast numbers of sentient beings over incomprehensible time scales, in Buddhist and Hindu cosmologies the time scales involve multiple universes for instance, that produce the seeming material world. In this way the 'subjective' becomes 'objective', and in a similar way the spiritual activities of highly accomplished spiritual practitioners will also leave 'objective' spiritual pathways within the qualitative quantum realm of Mindnature. As Khenchen Thrangu Rinpoche explains:

All the yidams and deities used in meditation have the same fundamental nature and are utterly pure. Nevertheless they have different appearances, which reflect the different activities that they embody and engage in. These different activities are primarily determined by the individual aspirations they made at their initial generation of bodhichitta.⁶⁸

Bodhichitta, the awakening mind, awakening heart or spirit of enlightenment is the driving force towards complete enlightenment. It is the internal energy of compassion used by bodhisattvas, or trainee buddhas, to 'grow' the sambhogakayas, or communication bodies of enjoyment, which then act as communication channels for sentient beings practicing the spiritual pathway of a particular yidam, or personal deity.

This constrained relativistic perspective can also be found within Christian mysticism, within which the spiritual pathways are considered to be emanations from the Godhead. The following, for instance, is from the writings of the late 5th to early 6th century Christian theologian St. Deny the Areopagite:

Salvation is possible only for deified souls, and deification is nothing else but the union and resemblance we strive to have with God. That which is bestowed uniformly and all at once, so to speak, on the Blessed Essences dwelling in Heaven, is transmitted to us as it were in fragments and through the multiplicity of the varied symbols of the Divine oracles.⁶⁹

And the second-third century Christian scholar and theologian Origen Adamantius tells us that:

There exist diverse forms of the Word under which It reveals Itself to Its disciples, conforming Itself to the degree of light of each one, according to the degree of their progress in holiness.⁷⁰

As indicated previously, Hinduism places constrained relativism at the heart of its understanding of the spiritual dimension of reality. There is only one ultimate Deity: Brahma - The Creator. All other manifested deities are considered his avatars, or incarnations: Vishnu - The Protector or Preserver, and Shiva - The Destroyer are two central examples, as they are the most popular Avatars of Brahma, who is the personal manifestation of the ultimate nondual source which is designated 'Brahman', which is considered to be the transpersonal ground in some Hindu spiritual philosophies but personal in others. In their personal religious practices, Hindus may worship primarily one or another of these avatars, known as their 'Ishta Devata' or chosen avatar. This practice of adopting a personal deity according to the practitioner's dispositions, capacities and psychological makeup is also found in Mahayana-Vajrayana (Diamond Vehicle) Buddhist devotional and visualisation practices wherein the Ishta-devata (*Yidam* in Tibetan) is a fully enlightened being who is the focus of personal practice.

Hinduism is a very rich and multilayered religion. Each of its manifestations shares rituals, beliefs, traditions and personal gods with others, but each sect has a differing philosophy on how to achieve life's ultimate goal of moksha, or liberation. However, each version fundamentally believes that a supreme nondual source or one supreme God manifests in varying ways according to the psychology and predispositions of practitioners.

This is a view which is also central in Mahayana Buddhism. There is a threefold classification of the ontological results of the achievement of Buddhahood which is reminiscent of the doctrine of the Trinity. This is called the doctrine of the 'trikaya', the three bodies of a Buddha:

- Dharmakaya – ultimate body of attributes
- Sambhogakaya – complete enjoyment body
- Nirmanakaya – emanation body

The dharmakaya is a nondual ultimate body which can be thought of as an extremely subtle embodied aspect of the sphere of the fundamental nondual awareness. The sambhogakaya is an archetypal body of potentiality. Nirmanakayas, or emanation bodies, arise on the basis of the sambhogakaya; they are brought into manifestation through the interaction of the archetypal sambhogakaya and the predispositions of sentient beings:

That which is a composite of Buddha-qualities ... and is nondual with and non-different from the perfection of wisdom is the body of attributes. That which arises from its blessings and depends on that foundation is the complete enjoyment body. Those which arise from its blessings and arise in accordance with the interests of trainees are emanation bodies.⁷¹

The term 'blessings' has a precise meaning; a 'blessing' denotes positive mental energy for transformation, an empowerment to transform consciousness in a positive direction. Thus the sphere of Buddhahood automatically sends out waves of blessings, waves of potentiality for positive transformation are radiated from the dharmakaya into the form realms. These radiated waves of wisdom and compassion are given form by bodhisattvas, trainee buddhas working their way towards enlightenment.

The ultimate nondual 'matrix' of reality, also called the 'body of attributes', has two aspects, an 'actual' and an 'imputed'. Whilst the actual nature is 'undefiled' and 'naturally luminous'; it is also 'the object of activity of buddhas' pristine wisdom'. The character of this activity is to provide a mechanism by which deluded sentient beings can be taught about the ultimate nature of reality. Such teachings have to be in accord with the predispositions of each sentient being, or 'trainee':

The body of attributes of teaching also has two aspects-in terms of ultimate truth, suchness, teaching the modes of the profound ... and in terms of the obscurational truths in accordance with the thoughts of various sentient beings...⁷²

Thus the nirmanakayas are communication bodies which appear to sentient beings in a way that they can comprehend and, although from an ultimate point of view the communicated truths are 'obscurational truths', which means they do not fully express the ultimate nature, they function to lead the minds of deluded sentient beings in the right direction.

The remarkable fourteenth century Buddhist practitioner and philosopher Dolpopa Sherab Gyaltzen described the ultimate experiential condition:

Therefore, that which is the primordial
awareness of the basic space
of phenomena is a permanent,
unconditioned primordial awareness
of indivisible space and pure awareness,
a primordial awareness of flawless paradox
beyond simile, a primordial awareness
of natural innateness,
a natural, immutable, fully established
primordial awareness
of natural great bliss.⁷³

The Hindu appellation for this state is *Sat-Chit-Ananda*, which is usually translated as 'Being-Consciousness-Bliss.' William Stoddard writes perceptively about this formulation:

This is accurate, and enables one to see that "Being" is the Divine Object (God Transcendent or Ultimate Reality), "Consciousness" is the Divine Subject (God Immanent or the Supreme Self), while "Bliss" – the harmonious coming-together of the two – is the Divine Union. The most fundamental translation therefore of *Sat-Chit-Ananda* is "Object-Subject-Union." This is the model, or origin,⁷⁴ of all possible objects and subjects, and of the longing of the later for the former.

Other possible translations for *Sat-Chit-Ananda* are 'Known-Knower-Knowledge' and 'Beloved-Lover-Love'. In Mahayana Buddhist philosophy this interdependent trichotomy is termed the 'three spheres of emptiness' (as opposed to the 'three realms or spheres of existence': desire realm, form realm and formless realm): the giver, the given, and the receiver. The point here is that because these aspects of the one act are interdependent they are necessarily 'empty' of independent existence and therefore are a symbol of a fundamental unity. Stoddard further draws the parallel with doctrines of some of the Christian Greek Fathers and St. Augustine's designation of the Christian Trinity as 'Being-Wisdom-Life' and the Sufi ternary *Madhkur-Dhakhir-Dhir*, or Invoked-Invoker-Invoker, the point being that in all cases a unity beyond designation manifests as a fundamental, yet ultimately illusory, trichotomy in various interconnected determinations.

A further significant mystical distinction is between 'Being' and 'Beyond Being.' This distinction is embodied in the Jewish mystical doctrine of the Kabbalah which derives from the mystical writings of the *Zohar*. Before any kind of manifestation takes place on levels approaching the material plane there occurs a subtle descent from a realm of pure potentiality within which there is utterly no distinction. According to Jewish mysticism this takes place through three levels:

- 000. Ain (Nothing; אִינּא)
- 00. Ain Soph (Limitlessness; אִינּא סוּפֵר)
- 0. Ain Soph Aur (Endless Light; אִינּא סוּפֵר אִוֵר)

Doctrines such as this should be considered from the point of view of what has been previously discussed regarding the way in which the manifestation of life must fundamentally devolve from subtle quantum levels of 'implicate orders' towards increasingly explicate material levels. This is a viewpoint which is clearly contained within the perspective of the Kabbalah which describes how subtle transcendental energies manifest towards the material

plane through the centers of manifestation called the sephira which are established after the threefold descent from the most subtle nondual level.

Ain (Ein or Ayn) is infinite no-thingness, a designation which immediately indicates a connection with the Buddhist notion of *shunyata*, or 'emptiness', which is the realm of potentiality which also is no-thing and yet at the same time the ground of everything. **Ain Soph** (Ein Sof or Ayn Sof) is understood as emergence the Deity in self-manifestation before the creation, another designation of this subtle level is 'the Endless One.' So before the emergence of the Deity there is a deeper level of complete empty potentiality with no determination whatsoever, a view which conforms to the Neoplatonic view that God in his ultimate form can have no desire, thought, word, or action.

The Zohar explains the term 'Ain Soph' as follows:

Before He gave any shape to the world, before He produced any form, He was alone, without form and without resemblance to anything else. Who then can comprehend how He was before the Creation? Hence it is forbidden to lend Him any form or similitude, or even to call Him by His sacred name, or to indicate Him by a single letter or a single point. . . . But after He created the form of the Heavenly Man, He used him as a chariot wherein to descend, and He wishes to be called after His form, which is the sacred name 'YHWH'.⁷⁵

And:

Any name of God which is found in the Bible can not be applied to the Deity prior to His self-manifestation in the Creation, because the letters of those names were produced only after the emanation. . . . Moreover, a name implies a limitation in its bearer; and this is impossible in connection with the 'En Sof'.⁷⁶

Thus the indeterminate 'God' which resides 'Beyond Being' is able to manifest in various forms as a personally experienced manifestation of the epiontic spiritual ground of reality. Hence the Sufi doctrine of the names of God:

This cosmogony . . . is . . . a succession of manifestations of being, brought about by an increasing light, within the originally undifferentiated God: it is a succession of . . . theophanies. This is the context of the of one of the most characteristic themes of Ibn 'Arabi's thinking, the doctrine of divine Names . . .

The Names, which are the divine Essence itself, because, though not identical with the divine Essence as such, the attributes they designate are not different from it, have existed from all eternity . . . We know them only by our knowledge of ourselves . . . God describes Himself to us through ourselves. Which means that the divine names are essentially relative to the beings who name them, since these beings discover and experience them in their own mode of being.⁷⁷

Hesychasm is a mystical tradition of experiential prayer in the Greek Orthodox Church which according to the Palamite teaching, named after St. Gregory Palamas, the fourteenth century monk of Mount Athos in Greece and later the Archbishop of Thessaloniki known as a preeminent theologian of Hesychasm, leads to a direct experience of the energies of God. According to Schuon:

"Virtue," so the Palamite teaching maintains, "disposes us fore union with God, but Grace accomplishes this inexpressible union" If the virtues act as modes of

knowledge, it is because they retrace by analogy Divine attitudes; there is in fact no virtue that does not derive from a Divine Prototype, and their in lies their deepest meaning: “to be” is “to know.”⁷⁸

Thus we see that spiritual ontology is determined by the activity of ‘knowing’, and thereby determining the form of manifestation of the infinite Divine potentiality, thus indicating that the quantum epiontic principle operates within the fundamental and primary spiritual domain of reality:

...quantum states, by their very nature share an epistemological and ontological role – are simultaneously a description of the state, and the ‘dream stuff is made of.’ One might say that they are *epiontic*. These two aspects may seem contradictory, but at least in the quantum setting, there is a union of these two functions.⁷⁹

Once the dualistic realm of the epiontic principle is transcended, however, all determinate forms of God are transcended. As the great Sufi mystic and poet Jalāl ad-Dīn Rumi declared:

I am neither Christian nor Jew nor Parsi nor Moslem. I am neither of the East or of the West, neither of the land nor of the sea ... I have put aside duality and have seen the two worlds as one. I seek the One, I know the One, I invoke the One. He is the First, He is the Last, He is the Outward, He is the Inward.⁸⁰

- ¹ Hawking, Steven & Mlodinow, Leonard (2010). *The Grand Design*, Bantam Press p180
- ² See *The Grand Design* p140
- ³ See *The Grand Design* p140
- ⁴ Zeilinger, Anton, Internet Essay: *On the Interpretation and Philosophical Foundation of Quantum Mechanics*.
- ⁵ Stapp, H. P. (2010). 'Minds and Values in the Quantum Universe' in *Information and the Nature of Reality*, Davies, Paul & Gregersen, Niels Henrik (eds), Cambridge University Press, p117.
- ⁶ Ward, Keith (2008) *Why There is Almost Certainly a God*, Lion. p80
- ⁷ Ward, Keith (2008) *Why There is Almost Certainly a God*, Lion. p80
- ⁸ Stapp, H. Quantum Collapse and the Emergence of Actuality from Potentiality p10
- ⁹ *ibid*
- ¹⁰ See Paul Davies (2007), *The Goldilocks Enigma*, Penguin Books p149
- ¹¹ Zajonc, Arthur (Editor) (2004)
- ¹² Stapp, H.. Quantum Collapse and the Emergence of Actuality from Potentiality p11
- ¹³ Wheeler quoted in Barrow, John D., Davies, Paul C. W., Harper, Charles L. (eds) (2004) p73 – Freeman J. Dyson: 'Thought-experiments in honor of John Archibald Wheeler.'
- ¹⁴ *Creative Evolution* p119
- ¹⁵ LS 298
- ¹⁶ Woolfson, Adrian (2000) p74
- ¹⁷ Barrow, D. John & Tipler, Frank J. (1986) p105
- ¹⁸ Woolfson, Adrian (2000) p76
- ¹⁹ Bohm, D. (2005). *On Creativity*. Routledge (First published 1996) p131
- ²⁰ *ibid*
- ²¹ INR p303
- ²² Mipam on Buddha-Nature p105
- ²³ Fithjof Schuon: 'The Quintessential Esotericism of Islam' in *Sufism: Love and Wisdom* p258-259. edited by Jean-Louis Michon & Roger Gaetani (2006) World Wisdom Inc.
- ²⁴ *Transcendental Unity* p52-53
- ²⁵ INR p33
- ²⁶ Frederick Copleston, *A History of Philosophy*, Volume 1, Continuum, 2003, pp. 458–462
- ²⁷ <http://www.biblegateway.com>
- ²⁸ *Information and the Nature of Reality* p 325
- ²⁹ *ibid*
- ³⁰ *Alone* p22
- ³¹ *Quantum Implications* p255-256
- ³² <http://www.biblegateway.com>
- ³³ Barrow, John D., Davies, Paul C. W., Harper, Charles L. (eds) (2004) p119 – H. Dieter Zeh: 'The wave function: it or bit?'
- ³⁴ <http://www.nytimes.com/2002/03/12/science/peering-through-the-gates-of-time.html>
- ³⁵ Bohm, David (2003) p181
- ³⁶ *Omniscience* p13
- ³⁷ Helminski p41
- ³⁸ *Alone with the Alone* p114
- ³⁹ Stapp
- ⁴⁰ PSHs p189
- ⁴¹ Penrose, Roger (1999) p292
- ⁴² GT p23
- ⁴³ PoM p261
- ⁴⁴ P258
- ⁴⁵ Brunnhölzl, Karl (2004)
- ⁴⁶ Brunnhölzl, Karl (2004) p332
- ⁴⁷ Addiss, Stephen; Lombardo, Stanley; Roitman, Judith (2008) p39
- ⁴⁸ Stapp, H. P. (2010). 'Minds and Values in the Quantum Universe' in *Information and the Nature of Reality*, Davies, Paul & Gregersen, Niels Henrik (eds), Cambridge University Press, p117.
- ⁴⁹ Vedral, Vlatko (2010) p200
- ⁵⁰ *Cosmology and Kabbalah: (This is ch 11 of "The Retroactive Universe") Broken Symmetry and Shvirat Hakelime, Tzimtzum and Free Will -www.pages.nyu.edu/~air1/Cosmology%20and%20Kabbalah.htm.*
- ⁵¹ Cohen, J. M. (1995) p57-58
- ⁵² Balldock, John (2004). p62
- ⁵³ Churton, Tobias (2005) p111

⁵⁴ Eye of the Storm – <http://www.keithdowman.net/dzogchen/eyeofthestorm.htm>

⁵⁵ TUR p2

⁵⁶ TUR p4-5

⁵⁷ Kumar, M (2008) p321

⁵⁸ Kumar, M (2008) p214

⁵⁹ Dolling, L.M.; Gianelli, A. F. & Statile, G. N. (eds) (2003) p469 – Werner Heisenberg: from ‘Physics and Philosophy.’

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⁶¹ <http://www.israinternational.com/component/content/article/42-rokstories/342-sufism-and-quantum-physics-.html>

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⁶³ <http://www.israinternational.com/component/content/article/42-rokstories/342-sufism-and-quantum-physics-.html>

⁶⁴ TUR p6

⁶⁵ Alone with the Alone p124

⁶⁶ Transcendental Unity p38

⁶⁷ Herbert, Nick: ‘Holistic Physics -or- Introduction to Quantum Tantra’ – Internet document

(www.southerncrossreview.org/16/herbert.essay.htm)

⁶⁸ Thrangu Rinpoche, Kenchen (2002) p10

⁶⁹ Transcendental Unity p138

⁷⁰ Transcendental Unity p127 - footnote

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⁷² Hopkins, Jeffrey (2006) p477

⁷³ The Buddha from Dolpo p155

⁷⁴ UR p234-5

⁷⁵ Wikipedia - Zohar

⁷⁶ ibid

⁷⁷ Alone p115

⁷⁸ Transcendental Unity p145

⁷⁹ Barrow, John D., Davies, Paul C. W., Harper, Charles L. (eds) (2004) p136 – Wojciech H. Zurek: ‘Quantum Darwinism and envariance.’

⁸⁰ UR p242